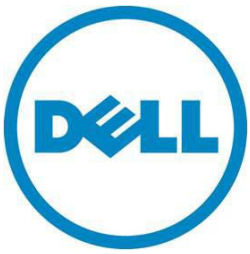
Dell OpenManage Essentials v1.2 - Device support for Dell Compellent, Force10, KVM, PDU & UPS

This Dell Technical White Paper describes complete details about Dell Device(s), i.e. Compellent, Force10, KVM, PDU and UPS, support in OpenManage Essentials

OME Engineering Team
Enterprise Product Group



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Executive summary

This document describes complete support of Dell Compellent, Force10, KVM, PDU and UPS in OpenManage Essentials. The following topics will be covered in this document:

1. Device Discovery/Inventory & Classification
2. Device Health
3. Application Launch
4. Monitoring these Devices (Alerts)
5. Troubleshooting

Introduction

OpenManage Essentials enables users to manage and monitor the discovered Dell Compellent, Force10, KVM, PDU and UPS devices, in addition to the devices supported in previous version, in a single centralized mode.

Scope

With OpenManage Essentials users can perform discovery and inventory to manage their network devices. Scope of this document limits to complete support of Dell Compellent, Force10, KVM, PDU and UPS in OpenManage Essentials.

Pre-requisites

OpenManage Essentials can discover and can receive alerts from Dell Compellent, Force10, KVM, PDU and UPS devices using SNMP protocol. SNMP protocol versions V1 and V2 are supported as of now. User has to configure the SNMP protocol on all the target devices and set the Management station IP to the machine where OpenManage Essentials is installed. Also, same IP needs to be mentioned for SNMP trap receiver for that device. Although these settings are not required on all these devices, still it is recommended to check for the SNMP configuration before performing discovery/inventory. The troubleshooting section will help more on how to make sure that a target device is well configured to be managed by OpenManage Essentials.

Protocol Support

Following table lists the protocols supported for various operations on configured devices:

Table 1: Device Protocol Support

Device Type	Discovery and Inventory	Traps
Dell Compellent	SNMP	SNMP
Dell Force10	SNMP	SNMP
Dell KVM	SNMP	SNMP
Dell PDU	SNMP	SNMP
Dell UPS	SNMP	SNMP

Device Discovery/Inventory & Classification

The process for discovering a Dell Compellent, Forc10, KVM, PDU or UPS through OpenManage Essentials is as follows:

1. Launch Open Manage Essentials.
2. Navigate to Manage -> Discovery and Inventory.
3. Click on "Add Discovery Range" on the left tree.
4. Enter the IP address / Host name and subnet mask and click "Add".

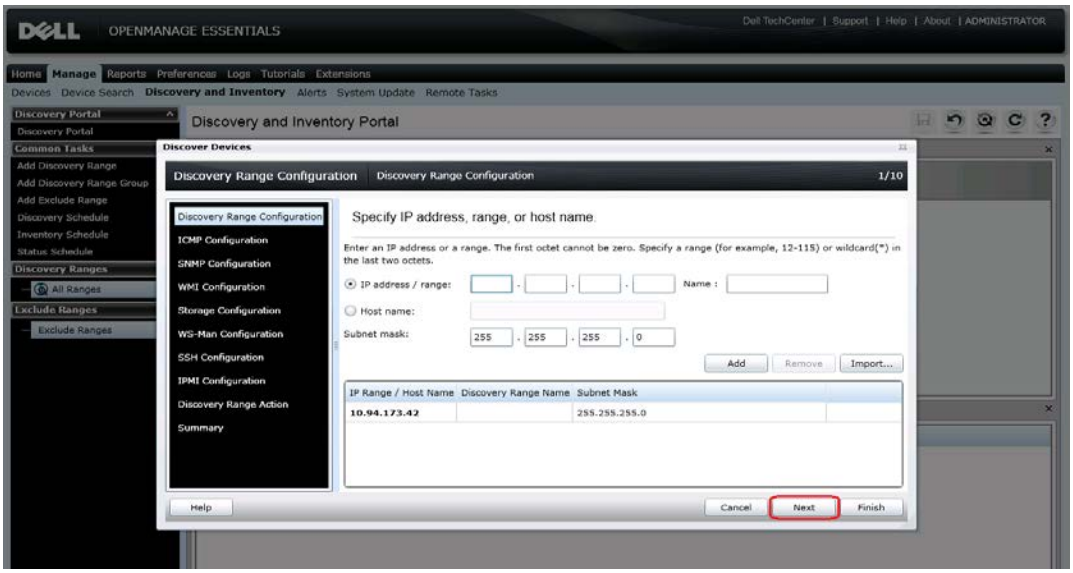

Figure 1: Discovery Range Configuration

5. Click "Next".
6. ICMP Configuration: click "Next".

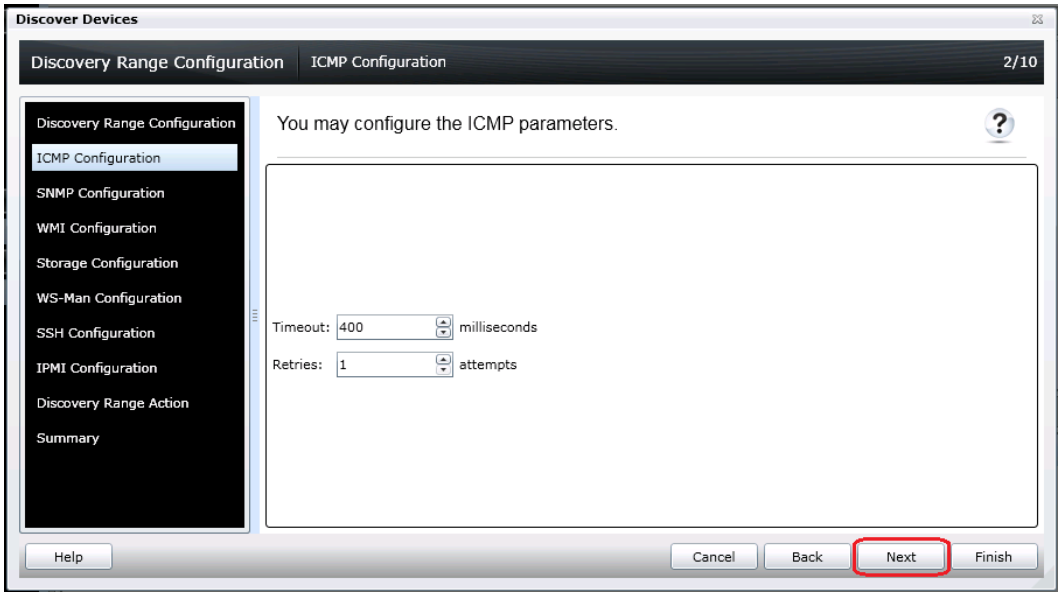

Figure 2: ICMP Configuration

7. SNMP Configuration: Modify "Get community" field if other than "public" and then click "Finish".

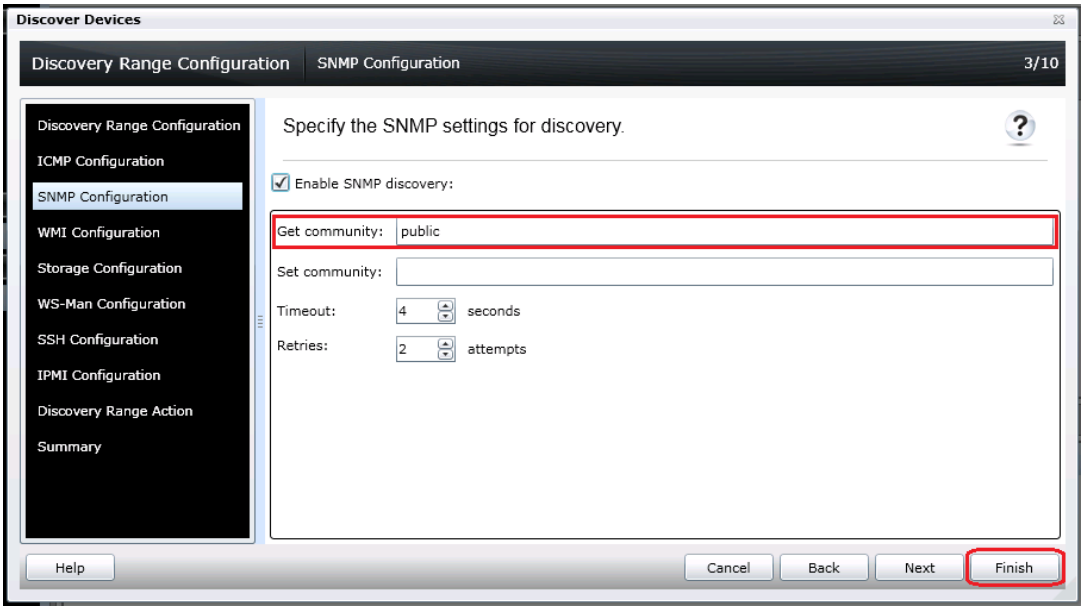

Figure 3: SNMP Configuration

Classification

Dell Compellent

After completion of the discovery task, user can navigate to the "Devices" tab to see the discovered device. Dell Compellent devices get classified under All Devices -> Storage Devices -> Dell Compellent Arrays in the tree on the left side. User can click the discovered device to see all the inventoried tables as shown in the following figures:

Figure 4: Dell Compellent Classification

Storage Center 60758-759

Details | Alerts

Device Summary

Health Status	Connection Status	Device Name	Device Type	Model	Service Tag	Asset Tag	Express Service Code	Location	Revision	Device Discovery Time	Device Inventory Time
	On	Storage Center 60758-759	Dell Compellent	N/A	N/A	N/A	N/A	N/A	N/A	6/18/2013 11:21:03 AM	6/18/2013 11:21:03 AM

Software Agent Information

Agent Global Status	Agent Name	Agent Version	Agent Description
	Dell-Compellent Storage Center	6.3.1	The Dell Compellent Storage Center storage area network provides a highly efficient and flexible virtualized storage platform for enterprise

NIC Information

IPv4 Address	IPv6 Address	MAC Address	Description	TOE Capability	TOE Enabled
10.94.102.43	N/A	00:30:5b:f2:0d:dc	eth0	N/A	N/A
10.94.102.41	N/A	00:30:5b:f2:0d:dc	eth0	N/A	N/A
11.0.10.220	N/A	00:30:5b:f2:0d:d8	eth1	N/A	N/A

Controller Information

Number	Name	Type	Firmware Version	Channel Count	Physical Device Count	Logical Device Count	Cache Size (MB)	Memory Size	Vendor
1	SN 60758	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	SN 60759	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure Information

Channel Number	Enclosure ID	Name	Product ID	Type	SCSI ID	Asset Name	Asset Tag	Service Tag	Serial Number	Part Number	Backplane Part Number	Vendor
N/A	1	Enclosure - 1	N/A	SAS_EBOD_6G	N/A	N/A	N/A	N/A	N/A	EN-SASX6X24	N/A	N/A

Physical Disk Information

Enclosure ID	Disk Number	Disk Status
01	1	Up
01	8	Up
01	9	Up
01	10	Up
01	11	Up
01	7	Up
01	6	Up
01	2	Up
01	3	Up
01	4	Up
01	5	Up
01	12	Up

Figure 5: Dell Compellent Inventory Details

Supported Models

OpenManage Essentials currently supports Dell Compellent SC8000 device.

Note:

The "Device summary" and "Enclosure Information" tables will show the service tag in the "Service Tag" column only if the Dell Compellent device is running with firmware version 6.4.1 or later. If the firmware version is earlier than the one stated, the "Service Tag" column will show "N/A". Firmware version can be located under the "Agent Version" column of the "Software Agent Information" table as highlighted in the above figure. Users are suggested to update all their target devices with the latest firmware available.

Dell Force10

Dell Force10 devices get classified under All Devices -> Network Devices -> Switches in the tree on the left side. User can click the discovered device to see all the inventoried tables as shown in the following figure:

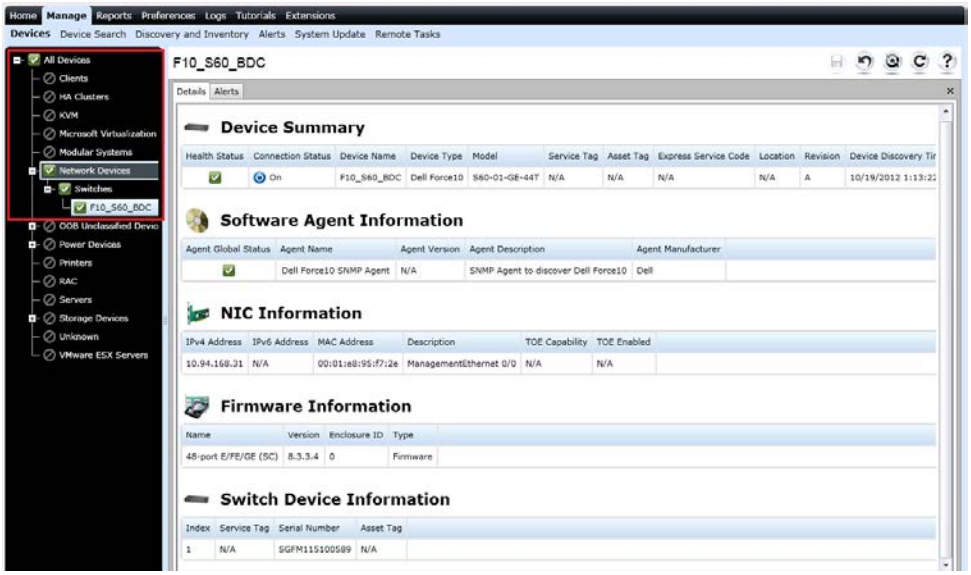

Figure 6: Dell Force10 Classification & Inventory

Supported Models

OpenManage Essentials currently supports following Dell Force10 devices:

Table 2: Minimum firmware version that supports the display of Service Tag of Dell Force10 devices

Dell Force10 Model	Minimum Firmware Version
C-Series	8.4.2.7
E-Series (ExaScale)	8.4.1.5
E-Series (TeraScale)	8.4.2.7
S25, S50	8.4.2.7
S55	8.3.5.3
S60	8.3.3.8
S4810	8.3.12.0
M-Series	8.3.16.1
Z-Series	9.0.0.0

Note:

The "Device summary" and "Switch Device Information" tables will show the service tag in the "Service Tag" column only if the Dell Force10 device is running with the supported firmware versions or later. Refer Table 2 for firmware versions supporting service tag for corresponding Force10 models. If the firmware version is earlier than the one stated, the "Service Tag" column will show "N/A." Firmware version can be located under the "Version" column of the "Firmware Information" table.

Dell KVM

Dell KVM devices get classified under All Devices -> KVM in the tree on the left side. User can click the discovered device to see all the inventoried tables as shown in the following figure:

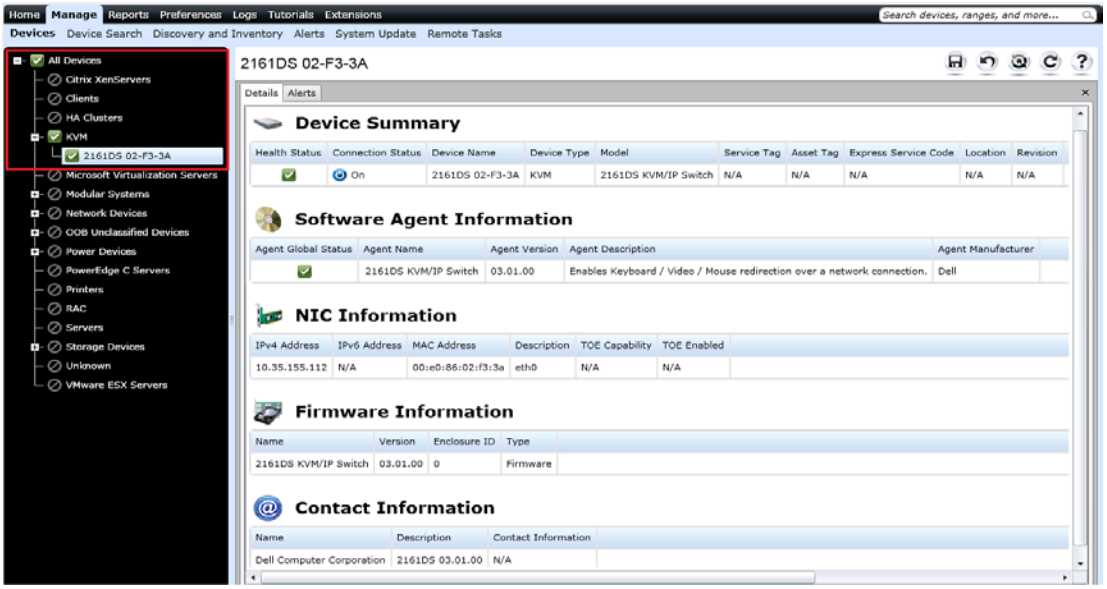

Figure 7: Dell KVM Classification & Inventory

Supported Models

OpenManage Essentials currently supports the following Dell KVM devices: 4161DS, 1082DS, 2161DS, 2161DS-2, 2162DS, 2321DS and 4332DS.

Dell PDU

Dell PDU devices get classified under All Devices -> Power Devices-> PDU in the tree on the left side. User can click the discovered device to see all the inventoried tables as shown in Figure 8.

Supported Models

OpenManage Essentials currently supports following Dell PDU devices:

- Managed Rack PDU: K538N, G756N, H544N, J523N and K539N.
- Metered Rack PDU: 1X98J, 7P35N, 09FG8, 4J1C2, XX5T6, RXKCH, K5YYY, 2CM2K, C0G4D, G728N, J519N, K535N, G740N, H534N, J520N, K536N, G744N, H537N, J521N and 6809.

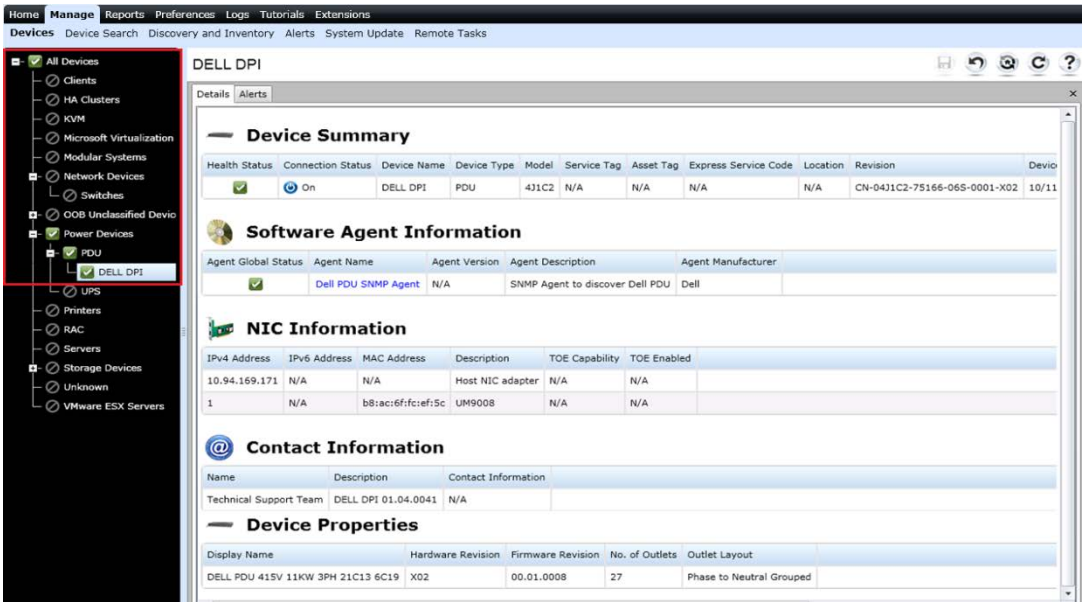
Home Manage Reports Preferences Logs Tutorials Extensions
Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks
All Devices
Clients
HA Clusters
KVM
Microsoft Virtualization
Modular Systems
Network Devices
Switches
OOB Unclassified Devic
Power Devices
PDU
DELL DPI
UPS
Printers
RAC
Servers
Storage Devices
Unknown
VMware ESX Servers
DELL DPI
Details Alerts
Device Summary
Health Status Connection Status Device Name Device Type Model Service Tag Asset Tag Express Service Code Location Revision
On DELL DPI PDU 4J1C2 N/A N/A N/A N/A CN-04J1C2-75166-06S-0001-X02 10/11
Software Agent Information
Agent Global Status Agent Name Agent Version Agent Description Agent Manufacturer
Dell PDU SNMP Agent N/A SNMP Agent to discover Dell PDU Dell
NIC Information
IPv4 Address IPv6 Address MAC Address Description TOE Capability TOE Enabled
10.94.169.171 N/A N/A Host NIC adapter N/A N/A
1 N/A b8:ac:6f:fc:ef:5c UM9008 N/A N/A
Contact Information
Name Description Contact Information
Technical Support Team DELL DPI 01.04.0041 N/A
Device Properties
Display Name Hardware Revision Firmware Revision No. of Outlets Outlet Layout
DELL PDU 415V 11KW 3PH 21C13 6C19 X02 00.01.0008 27 Phase to Neutral Grouped

Figure 8: Dell PDU Classification & Inventory

Dell UPS

Dell UPS devices get classified under All Devices -> Power Devices-> UPS in the tree on the left side. User can click the discovered device to see all the inventoried tables as shown in the following figure:

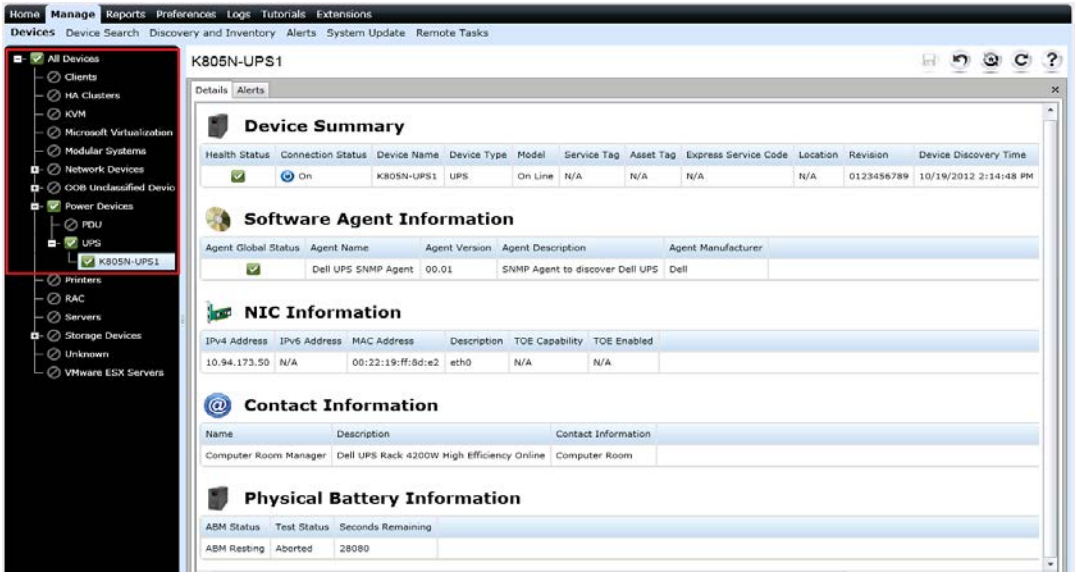
Home Manage Reports Preferences Logs Tutorials Extensions
Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks
All Devices
Clients
HA Clusters
KVM
Microsoft Virtualization
Modular Systems
Network Devices
OOB Unclassified Devic
Power Devices
PDU
UPS
K805N-UPS1
Printers
RAC
Servers
Storage Devices
Unknown
VMware ESX Servers
K805N-UPS1
Details Alerts
Device Summary
Health Status Connection Status Device Name Device Type Model Service Tag Asset Tag Express Service Code Location Revision Device Discovery Time
On K805N-UPS1 UPS On Line N/A N/A N/A N/A 0123456789 10/19/2012 2:14:48 PM
Software Agent Information
Agent Global Status Agent Name Agent Version Agent Description Agent Manufacturer
Dell UPS SNMP Agent 00.01 SNMP Agent to discover Dell UPS Dell
NIC Information
IPv4 Address IPv6 Address MAC Address Description TOE Capability TOE Enabled
10.94.173.50 N/A 00:22:19:ff:8d:e2 eth0 N/A N/A
Contact Information
Name Description Contact Information
Computer Room Manager Dell UPS Rack 4200W High Efficiency Online Computer Room
Physical Battery Information
ABM Status Test Status Seconds Remaining
ABM Resting Aborted 28080

Figure 9: Dell UPS Classification & Inventory

Supported Models

OpenManage Essentials currently supports the following Dell UPS devices: 1000T HV, 4200R HV, 1920T LV, 1920T HV, 500T LV, 500T HV, 1000R LV, 1000R HV, 1920R LV, 1920R HV, 2700R/T LV, 2700R/T HV, 2700R/T HV-US, 2700R Telco LV, 2700R Telco HV-US, 2700R Telco HV, 3750R HV-US, 3750R HV, 4200R HV-US, 4200R HV, 5600 LI HV-US, 5600 LI HV, 5600R OL HV-US and 5600R OL HV.

Device Health

Health status reflects the overall health of the device contributed by their SNMP agent. The health status can be Critical, Warning, Normal or Unknown. Please refer to the Table 2 for more details:

Table 3: Device Health Symbols

Symbol	Description
	Denotes that a device is critical and requires attention. This information is rolled up to the parent device type. For example if a PDU is in critical state and requires attention the same symbol is assigned to the parent device type, i.e. Power Devices. Critical health state is given the highest priority. That is, in a group, if different devices are in different states, and if one device is in critical state, then the state of the parent device type is set to critical.
	Denotes that there is a deviation from the expected behavior, but the device is still manageable.
	Denotes that the device is working as expected.
	Denotes the device does not have proper instrumentation or proper protocol was not used to discover the device.

Warranty Information support

OpenManage Essentials 1.2 supports warranty by providing in-built report for warranty information & launch point online for warranty renewal. This warranty information is collected at run time from Dell website by providing corresponding service tag of the hardware.

Warranty information is based on the service tag and is available for Dell Compellent and Dell Force 10 devices. It is not available for Dell KVM, PDU and UPS devices. Warranty report for Dell Compellent and Dell Force10 device can be viewed by navigating to Reports -> Warranty Information tab as shown below:

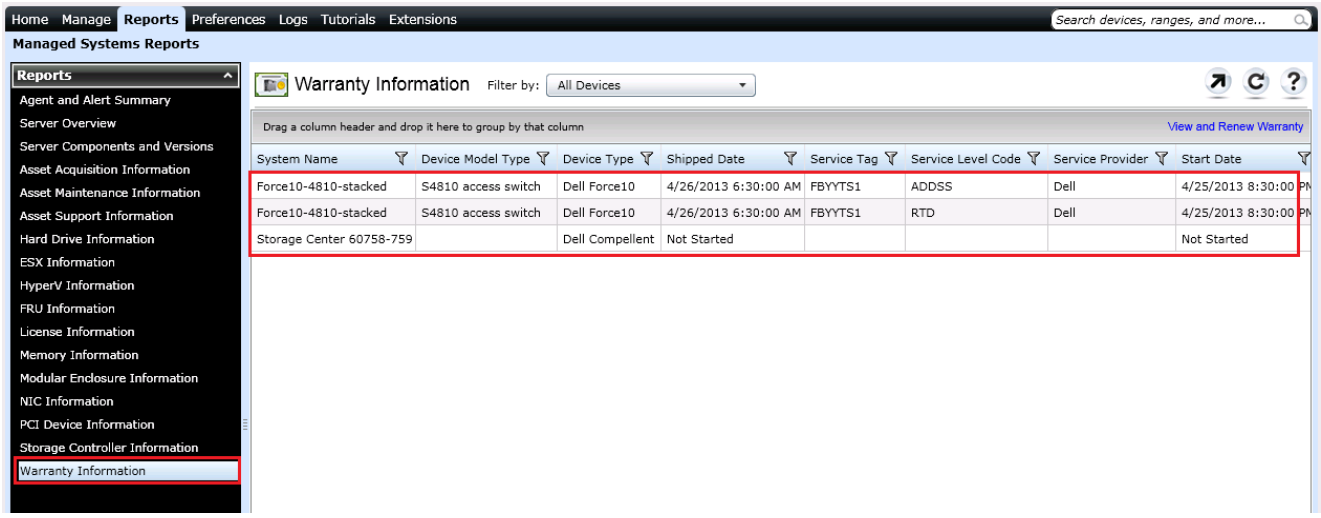

Figure 10: Warranty Information

Application Launch

Application launch provides a right-click action menu item on the discovered device to launch 1×1 console or application. OpenManage Essentials provides the capability to launch and navigate to the device specific portals for Dell Compellent, KVM, PDU and UPS. Dell Force10 does not provide any specific portal for more information/configuration. Dell Force10 device gives Application Launch option for "View and Renew Warranty" only. Application launch action can be performed as shown in the following figure:

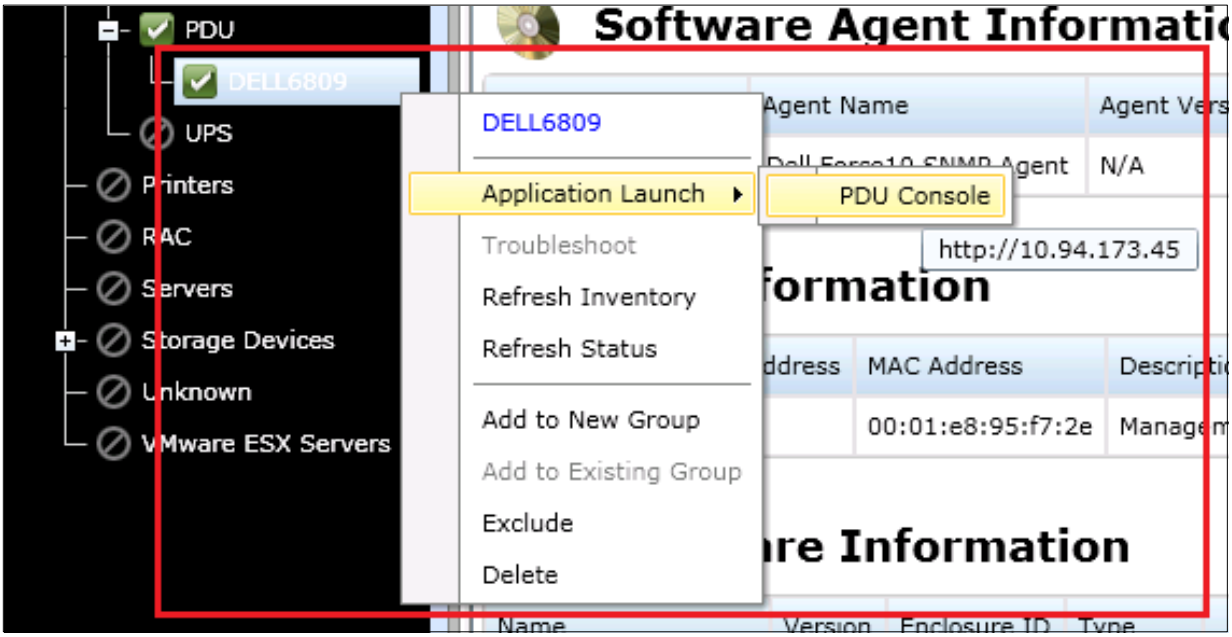

Figure 11: Application Launch for Dell PDU

Configuring Custom URLs

OpenManage Essentials supports creation and launch of custom URLs on Dell Compellent, Force10, KVM, PDU and UPS devices. This feature comes handy when user wants to visit same URL for a group of devices. Once created, any device falling under the group gets added with the custom URL launch.

Creating a Custom URL

Steps to create a custom URL for Dell Compellent, Force10, KVM, PDU or UPS are as follows:

1. Click Preferences -> Custom URL Settings.
2. Click icon on right side.
3. Enter the Name, URL, Description and select the device type from the drop-down list. After entering the URL, you can also test the URL launch by clicking the "Test URL" button.
4. Click "Ok."

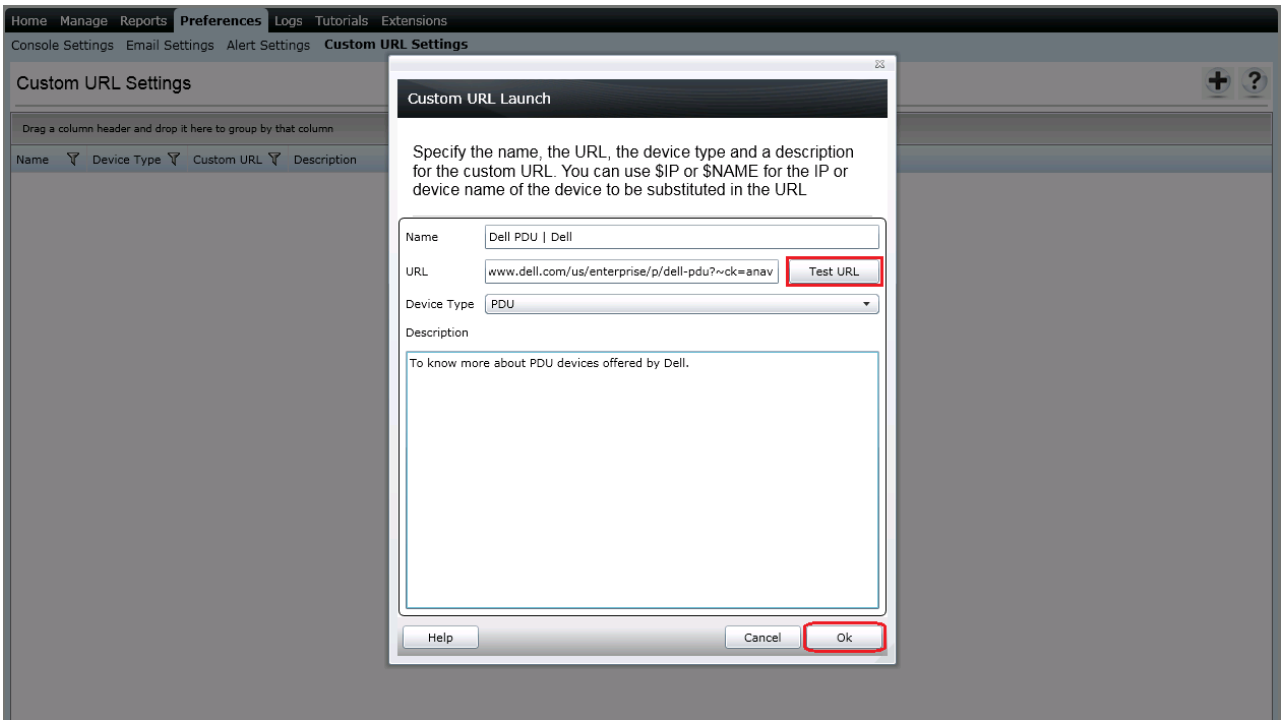
Home Manage Reports Preferences Logs Tutorials Extensions
Console Settings Email Settings Alert Settings Custom URL Settings
Custom URL Settings
Drag a column header and drop it here to group by that column
Name Device Type Custom URL Description
Custom URL Launch
Specify the name, the URL, the device type and a description for the custom URL. You can use $IP or $NAME for the IP or device name of the device to be substituted in the URL
Name
Dell PDU | Dell
URL
www.dell.com/us/enterprise/p/dell-pdu?~ck=anav
Test URL
Device Type
PDU
Description
To know more about PDU devices offered by Dell.
Help
Cancel
Ok

Figure 12: Creating a Custom URL

Launching the Custom URL

Procedure for launching the custom URL is as follows:

1. Click Manage -> Devices and select the device from the tree.
2. Right-click the device and select "Application Launch."

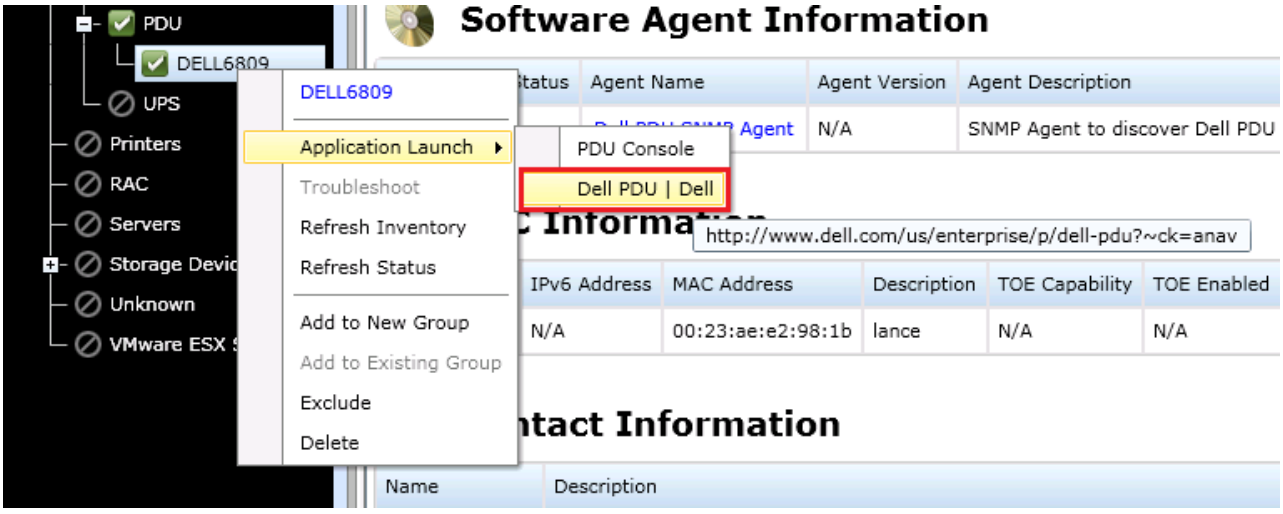

Figure 13: Launching the Custom URL

Alerts (SNMP Traps)

The SNMP alerts received from Dell Compellent, Force10, KVM, PDU and UPS devices will be shown under the alerts tab of the respective devices. OpenManage Essentials supports SNMP V1/V2 alerts only (as of now). The status of the device is polled every time an SNMP trap is received from that device. For example, if a trap with critical severity is received from a device, status of that device is set to critical.

Understanding the Alert types

The following alert log types are displayed:

Table 4: Alert Types

Icon	Alert	Description
	Normal Alerts	An event from a device that describes the successful operation of a unit, such as a power supply turning on.
	Warning Alerts	An event that is not necessarily significant, but may indicate a possible future problem, such as crossing a warning threshold.
	Critical Alerts	A significant event that indicates actual or imminent loss of data or loss of function, such as crossing a failure threshold or a hardware failure.
	Unknown Alerts	An event has occurred but there is insufficient information to classify it.
	Information Alerts	Provides information only.

Viewing Alerts from a Device

Click on the device in the device tree then navigate to the "Alerts" tab as shown below:

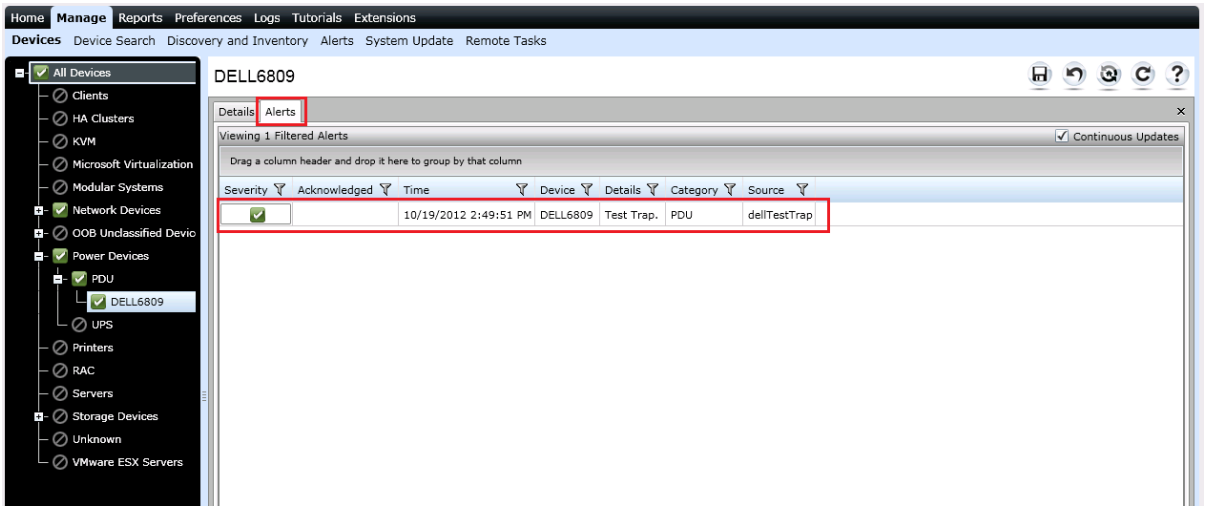

Figure 14: SNMP Alert from a Dell PDU

Viewing Alert Categories

The predefined alerts for Dell Compellent, Force10, KVM, PDU and UPS can be seen under the Alert Categories section in OpenManage Essentials. Navigate to Manage -> Alerts -> Alert Categories, and then click the appropriate alert category.

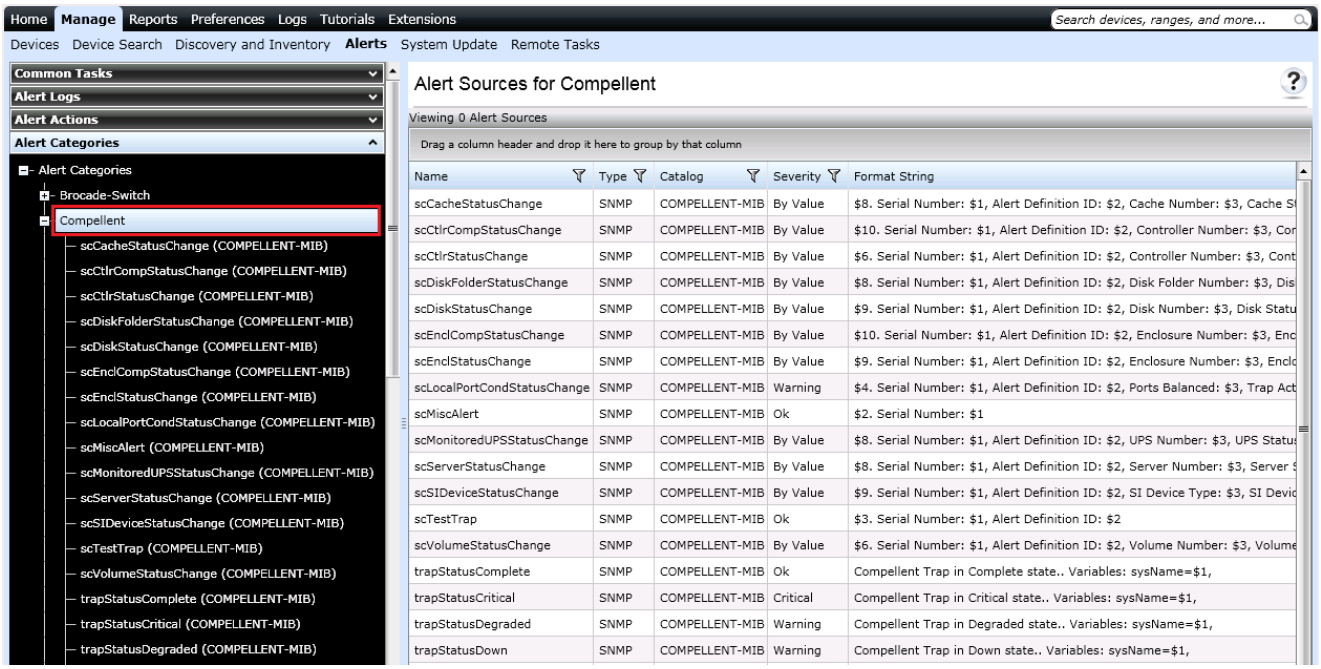
Home
Manage
Reports
Preferences
Logs
Tutorials
Extensions
Search devices, ranges, and more...
Devices
Device Search
Discovery and Inventory
Alerts
System Update
Remote Tasks
Common Tasks
Alert Logs
Alert Actions
Alert Categories
Alert Categories
Brocade-Switch
Compellent
scCacheStatusChange (COMPELLENT-MIB)
scCtlrCompStatusChange (COMPELLENT-MIB)
scCtlrStatusChange (COMPELLENT-MIB)
scDiskFolderStatusChange (COMPELLENT-MIB)
scDiskStatusChange (COMPELLENT-MIB)
scEnclCompStatusChange (COMPELLENT-MIB)
scEnclStatusChange (COMPELLENT-MIB)
scLocalPortCondStatusChange (COMPELLENT-MIB)
scMiscAlert (COMPELLENT-MIB)
scMonitoredUPSStatusChange (COMPELLENT-MIB)
scServerStatusChange (COMPELLENT-MIB)
scSIDeviceStatusChange (COMPELLENT-MIB)
scTestTrap (COMPELLENT-MIB)
scVolumeStatusChange (COMPELLENT-MIB)
trapStatusComplete (COMPELLENT-MIB)
trapStatusCritical (COMPELLENT-MIB)
trapStatusDegraded (COMPELLENT-MIB)
Alert Sources for Compellent
Viewing 0 Alert Sources
Drag a column header and drop it here to group by that column
Name
Type
Catalog
Severity
Format String
scCacheStatusChange SNMP COMPELLENT-MIB By Value $8. Serial Number: $1, Alert Definition ID: $2, Cache Number: $3, Cache S
scCtlrCompStatusChange SNMP COMPELLENT-MIB By Value $10. Serial Number: $1, Alert Definition ID: $2, Controller Number: $3, Cor
scCtlrStatusChange SNMP COMPELLENT-MIB By Value $6. Serial Number: $1, Alert Definition ID: $2, Controller Number: $3, Cont
scDiskFolderStatusChange SNMP COMPELLENT-MIB By Value $8. Serial Number: $1, Alert Definition ID: $2, Disk Folder Number: $3, Dis
scDiskStatusChange SNMP COMPELLENT-MIB By Value $9. Serial Number: $1, Alert Definition ID: $2, Disk Number: $3, Disk Statu
scEnclCompStatusChange SNMP COMPELLENT-MIB By Value $10. Serial Number: $1, Alert Definition ID: $2, Enclosure Number: $3, Enc
scEnclStatusChange SNMP COMPELLENT-MIB By Value $9. Serial Number: $1, Alert Definition ID: $2, Enclosure Number: $3, Enclo
scLocalPortCondStatusChange SNMP COMPELLENT-MIB Warning $4. Serial Number: $1, Alert Definition ID: $2, Ports Balanced: $3, Trap Act
scMiscAlert SNMP COMPELLENT-MIB Ok $2. Serial Number: $1
scMonitoredUPSStatusChange SNMP COMPELLENT-MIB By Value $8. Serial Number: $1, Alert Definition ID: $2, UPS Number: $3, UPS Status
scServerStatusChange SNMP COMPELLENT-MIB By Value $8. Serial Number: $1, Alert Definition ID: $2, Server Number: $3, Server S
scSIDeviceStatusChange SNMP COMPELLENT-MIB By Value $9. Serial Number: $1, Alert Definition ID: $2, SI Device Type: $3, SI Devic
scTestTrap SNMP COMPELLENT-MIB Ok $3. Serial Number: $1, Alert Definition ID: $2
scVolumeStatusChange SNMP COMPELLENT-MIB By Value $6. Serial Number: $1, Alert Definition ID: $2, Volume Number: $3, Volume
trapStatusComplete SNMP COMPELLENT-MIB Ok Compellent Trap in Complete state.. Variables: sysName=$1,
trapStatusCritical SNMP COMPELLENT-MIB Critical Compellent Trap in Critical state.. Variables: sysName=$1,
trapStatusDegraded SNMP COMPELLENT-MIB Warning Compellent Trap in Degraded state.. Variables: sysName=$1,
trapStatusDown SNMP COMPELLENT-MIB Warning Compellent Trap in Down state.. Variables: sysName=$1,

Figure 15: Alert Sources for Dell Compellent

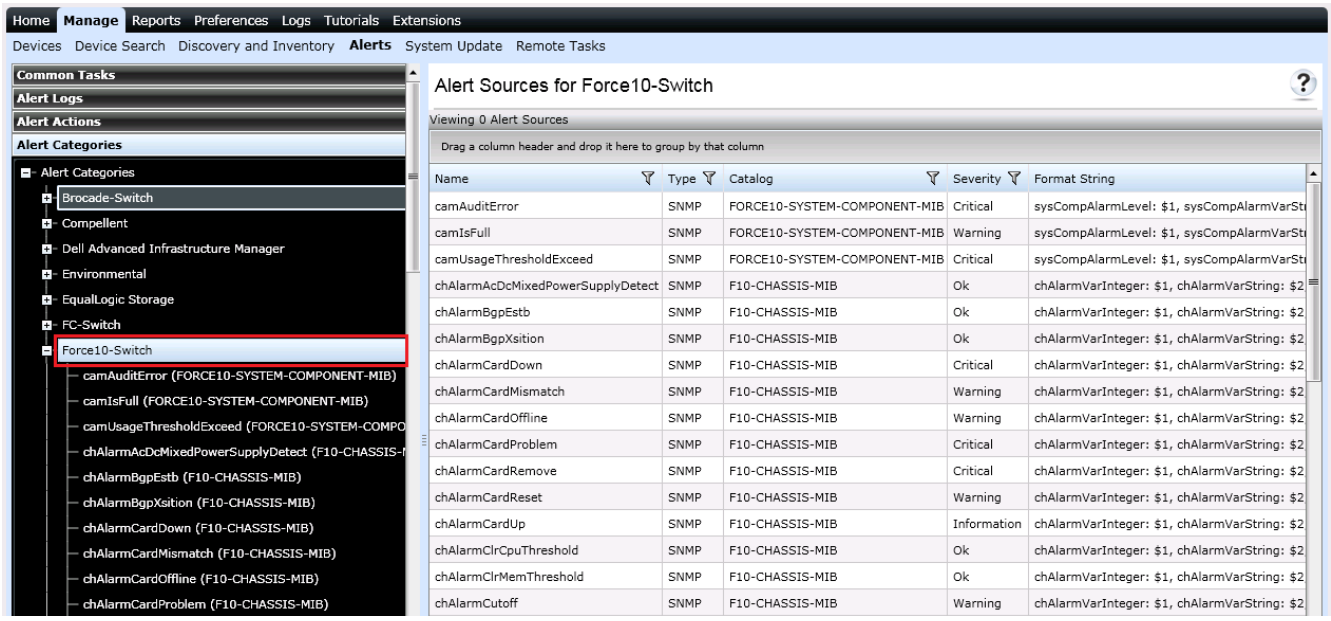

Figure 16: Alert Sources for Dell Force10

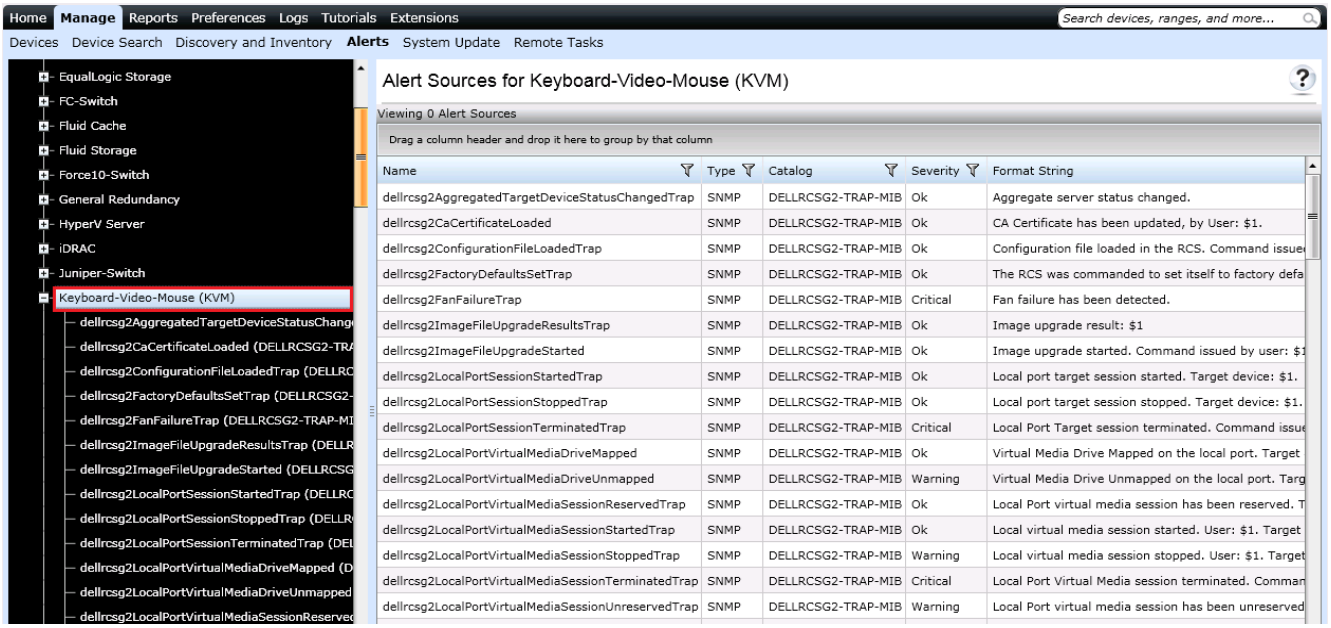

Figure 17: Alert Sources for Dell KVM

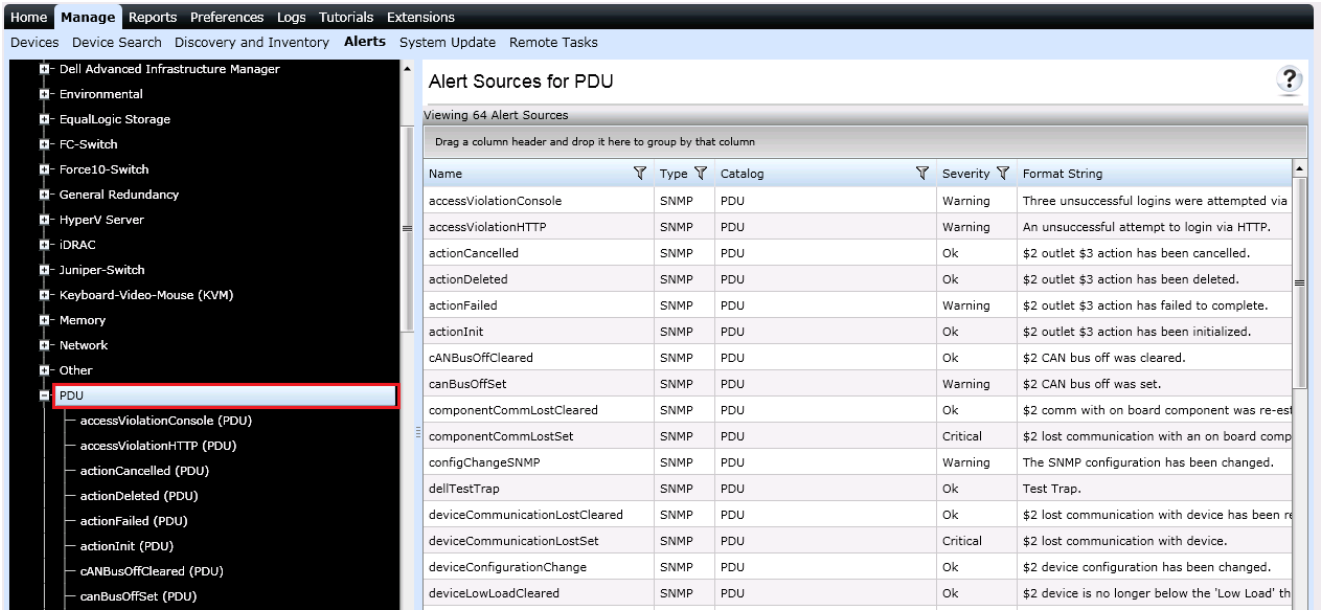

Figure 18: Alert Sources for Dell PDU

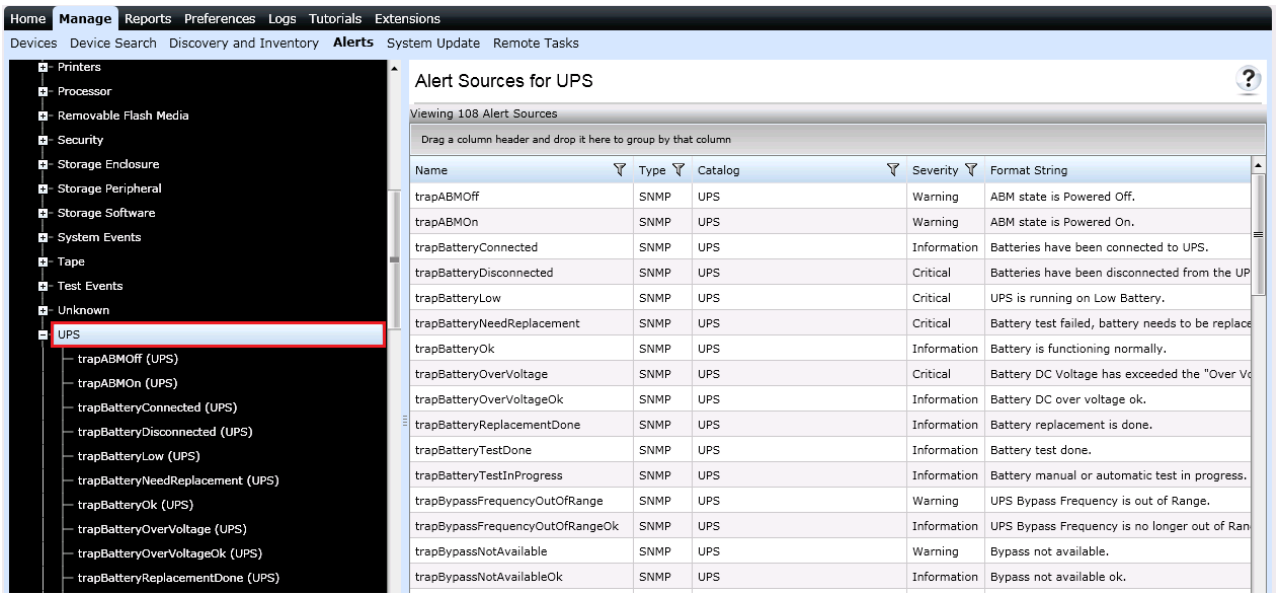
Home Manage Reports Preferences Logs Tutorials Extensions
Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks
Printers
Processor
Removable Flash Media
Security
Storage Enclosure
Storage Peripheral
Storage Software
System Events
Tape
Test Events
Unknown
UPS
trapABMOff (UPS)
trapABMOn (UPS)
trapBatteryConnected (UPS)
trapBatteryDisconnected (UPS)
trapBatteryLow (UPS)
trapBatteryNeedReplacement (UPS)
trapBatteryOk (UPS)
trapBatteryOverVoltage (UPS)
trapBatteryOverVoltageOk (UPS)
trapBatteryReplacementDone (UPS)
Alert Sources for UPS
Viewing 108 Alert Sources
Drag a column header and drop it here to group by that column
Name Type Catalog Severity Format String
trapABMOff SNMP UPS Warning ABM state is Powered Off.
trapABMOn SNMP UPS Warning ABM state is Powered On.
trapBatteryConnected SNMP UPS Information Batteries have been connected to UPS.
trapBatteryDisconnected SNMP UPS Critical Batteries have been disconnected from the UP
trapBatteryLow SNMP UPS Critical UPS is running on Low Battery.
trapBatteryNeedReplacement SNMP UPS Critical Battery test failed, battery needs to be replace
trapBatteryOk SNMP UPS Information Battery is functioning normally.
trapBatteryOverVoltage SNMP UPS Critical Battery DC Voltage has exceeded the "Over Vo
trapBatteryOverVoltageOk SNMP UPS Information Battery DC over voltage ok.
trapBatteryReplacementDone SNMP UPS Information Battery replacement is done.
trapBatteryTestDone SNMP UPS Information Battery test done.
trapBatteryTestInProgress SNMP UPS Information Battery manual or automatic test in progress.
trapBypassFrequencyOutOfRange SNMP UPS Warning UPS Bypass Frequency is out of Range.
trapBypassFrequencyOutOfRangeOk SNMP UPS Information UPS Bypass Frequency is no longer out of Ran
trapBypassNotAvailable SNMP UPS Warning Bypass not available.
trapBypassNotAvailableOk SNMP UPS Information Bypass not available ok.

Figure 19: Alert Sources for Dell UPS

Configuring Alert Actions

Alert actions occur on all alerts received by the OpenManage Essentials console. The alert is received and processed to take appropriate action depending upon the user configuration for that alert. To configure an alert action, navigate to Manage -> Alerts -> Alert Actions and then right-click on the appropriate category as shown in Figure 20.

Following alert actions are supported in OpenManage Essentials:

1. Application Launch
2. E-mail Notification
3. Ignoring Alerts
4. Forwarding Alerts

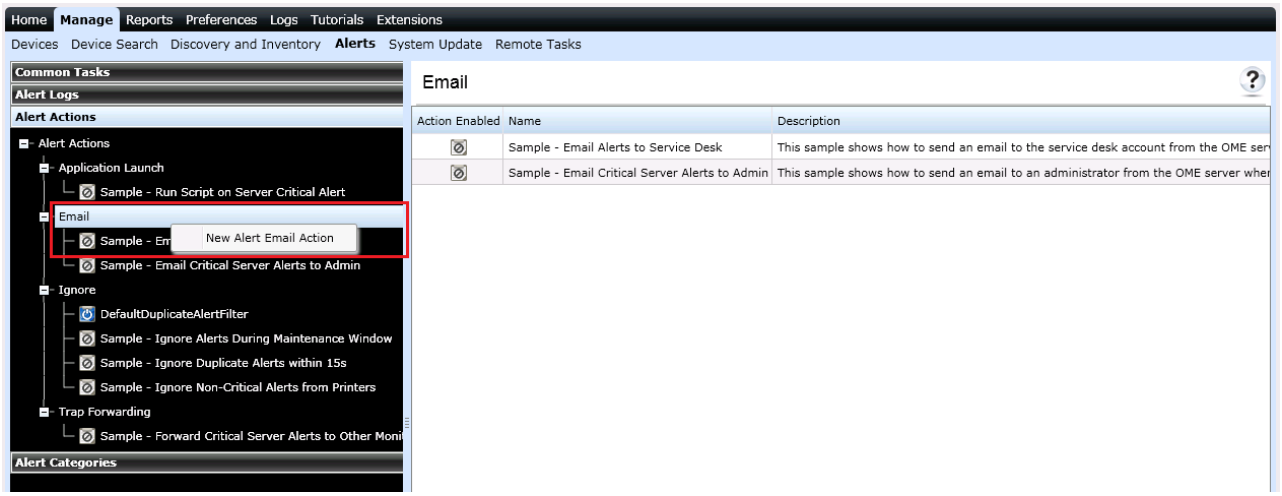
Home Manage Reports Preferences Logs Tutorials Extensions
Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks
Common Tasks
Alert Logs
Alert Actions
Alert Actions
Application Launch
Sample - Run Script on Server Critical Alert
Email
Sample - Em
New Alert Email Action
Sample - Email Critical Server Alerts to Admin
Ignore
DefaultDuplicateAlertFilter
Sample - Ignore Alerts During Maintenance Window
Sample - Ignore Duplicate Alerts within 15s
Sample - Ignore Non-Critical Alerts from Printers
Trap Forwarding
Sample - Forward Critical Server Alerts to Other Moni
Alert Categories
Email
Action Enabled Name Description
Sample - Email Alerts to Service Desk This sample shows how to send an email to the service desk account from the OME ser
Sample - Email Critical Server Alerts to Admin This sample shows how to send an email to an administrator from the OME server whe

Figure 20: Configuring Email Alert Action

Configuring Warranty Email Notifications

You can configure OpenManage Essentials to send a warranty notification of your devices at periodic intervals through email based on the configuration done by you. The warranty notification email provides a list of devices and appropriate links that you can click to renew the warranty of the devices. Follow these steps to configure Warranty Email Notifications:

1. Click Preferences -> Warranty Notification Settings.
2. Under Warranty Email Notifications, select "Enable Warranty Email Notifications."
3. In the "To" field, type the email addresses of the recipients (semicolon separated).
4. In the "From" field, type the email address from which the warranty notification email is to be sent.
5. Set the criteria for the devices to be included in the warranty notification email.
6. Set the frequency at which you want to receive the warranty notification email.
7. To include devices with expired warranty or no warranty information in the warranty notification email, select "Include Devices with Expired Warranties."
8. In the "Next Email will Send On" field, select the date and time at which you want to receive the next warranty notification e-mail.
9. If you want to configure the SMTP email server, click "Email Settings."
10. Click "Apply."

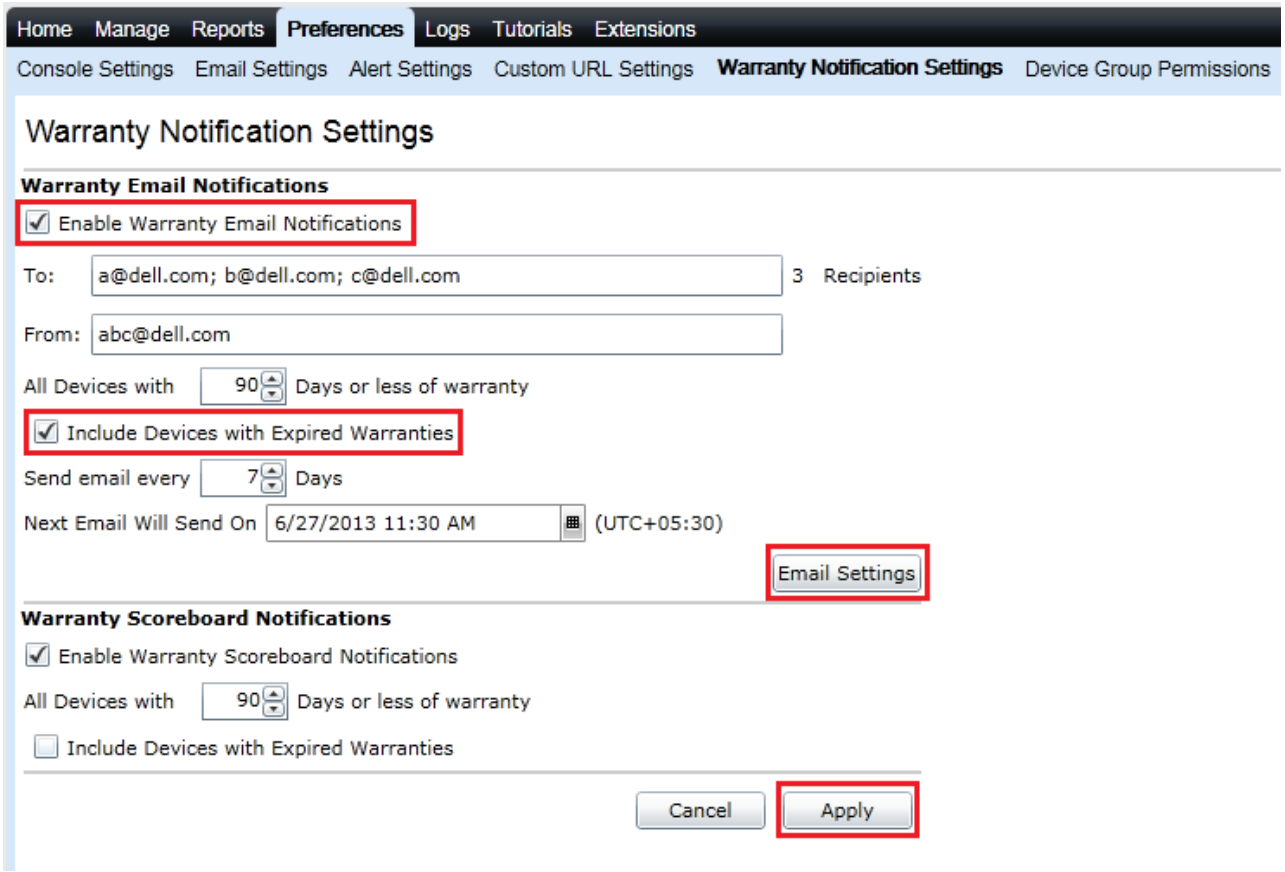

Figure 21: Warranty Email Notification Settings

Configuring Warranty Scoreboard Notifications

You can configure OpenManage Essentials to display a warranty scoreboard notification icon in the heading banner. If any device meets the set criteria, the OpenManage Essentials heading banner displays the warranty scoreboard notification icon including the number of devices. Follow these steps to configure Warranty Scoreboard Notifications:

1. Click Preferences -> Warranty Notification Settings.
2. Under Warranty Scoreboard Notifications, select "Enable Warranty Scoreboard Notifications."
3. Set the criteria for the devices to be included in the warranty notification scoreboard.
4. To include devices with expired warranty or no warranty information in the warranty notifications scoreboard, select "Include Devices with Expired Warranties."
5. Click "Apply."

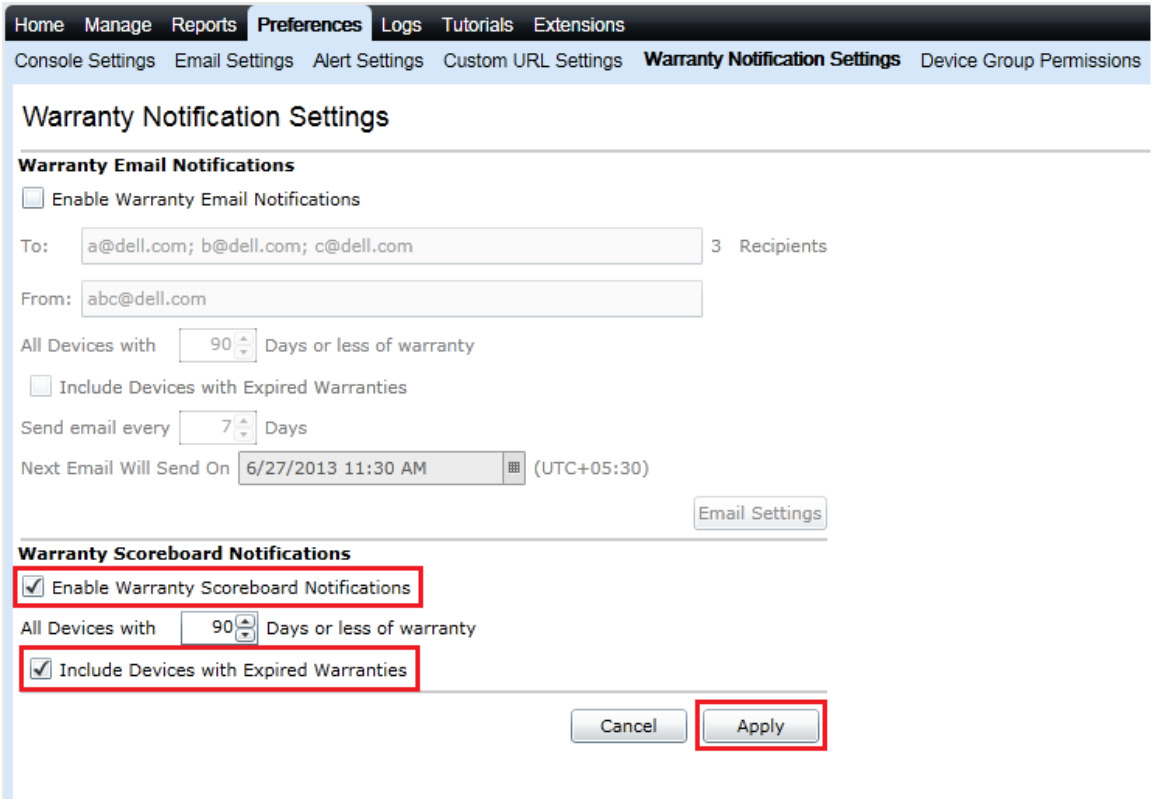

Figure 22: Warranty Scoreboard Notification Settings

Troubleshooting

OpenManage Essentials Troubleshooting Tool

The OpenManage Essentials Troubleshooting Tool is a standalone tool that installs along with OpenManage Essentials. You can use this tool for a wide array of protocol related problems that are often at the root of discovery and alert issues.

Troubleshooting Discovery of a Dell Compellent, Force10, KVM, PDU or UPS Device

1. Ensure that SNMP is enabled and properly configured on the target device by accessing its Web Interface.
2. Launch the Dell Troubleshooting Tool.
3. Navigate to Protocols (Remote Box) tab.
4. Give IP of the target device.
5. Select "SNMP" in the "Select Protocol(s)" pane.
6. Provide correct community name and click "Run Test."

The "Result" window should show the SNMP test results for that device.

Example (refer Figure 23): For a Dell UPS, following rows should display:

1. MIB-II (System Name)
2. MIB-II (MAC Address)
3. Dell UPS (Family Name)

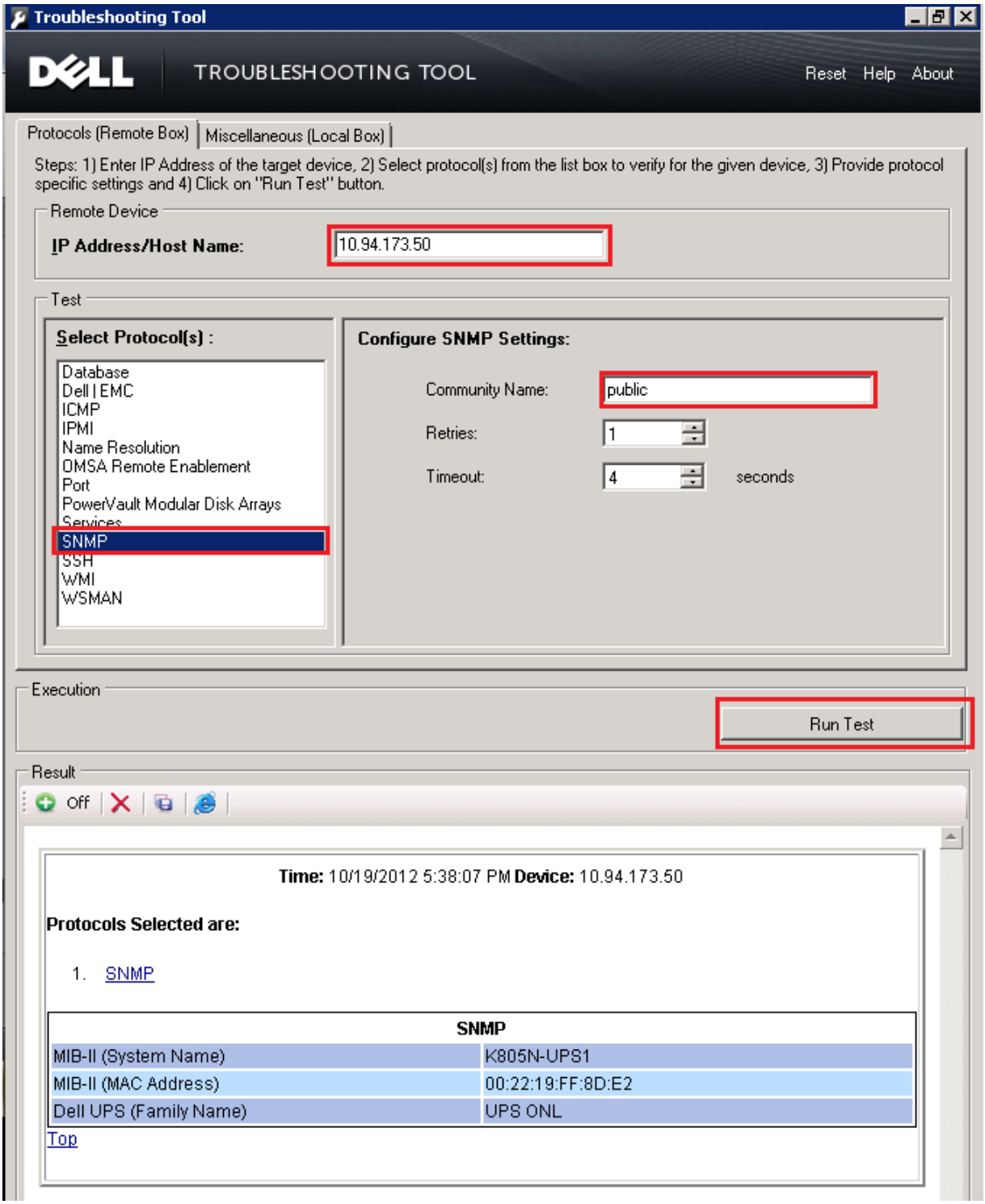

Figure 23: Troubleshooting Tool: SNMP Test for Dell UPS

ProSupport with Dell SupportAssist

The Dell SupportAssist plug-in proactively identifies hardware failures in your IT environment, and provides you with an efficient and personalized support experience. The Dell SupportAssist plug-in is bundled as part of the OpenManage Essentials installation media and can be installed from there as required.

Dell SupportAssist integrates with OpenManage Essentials to give you the added capabilities of secure remote monitoring so you know how your systems are performing at all times. SupportAssist is designed to help you manage your environment proactively with the following features:

- Detects and analyzes problems using automated data collection and diagnostics
- Helps accelerate resolution by automatically generating notifications and accurate case information with your Dell support team
- Provides parts replacement, as needed, directly from Dell

Dell force10 devices are currently covered under ProSupport with Dell SupportAssist. For more information please visit: *www.dell.com/learn/services/support-assist*

Learn More

Please Visit: *www.delltechcenter.com/ome*